ABSTRACT

In a process for the electrogalvanic coating of metal items through a sequence of chemical or electrochemical treatment phases, each of said treatment phases includes the following steps:

a) introducing the drum containing the items into a centrifuge;

b) delivering a first chemical treatment liquid to the centrifuge;

c) carrying out the treatment;

d) draining said first chemical treatment liquid from the centrifuge;

e) carrying out a centrifugation of the items to recover said liquid;

f) delivering washing water to the centrifuge;

g) carrying out the washing;

h) draining the washing water from the centrifuge;

i) carrying out a centrifugation of the items to recover said water;

j) transferring the drum to another station, or repeating the preceding steps with another chemical treatment liquid.

Carrying out the washing subsequent to a chemical treatment phase in the same station where the treatment has been carried out allows to significantly reduce the number of stations, moreover the centrifugation subsequent to every treatment or washing allows to recover the liquids thus reducing the consumption thereof, as well as to prevent the problems of liquid carry-over from one station to another, which also prevents the environmental pollution. A plant that embodies said process consists of a sequence of aligned stations (A), with an automatic loading station at the inlet and an automatic unloading station at the outlet, in which the items to be treated are contained in perforated cylindrical drums (D) open at the top that are automatically moved from one station to another by means of carriages (C) that run on rails (B) extending above the stations along the whole length of the plant. The use of open drums (D), instead of the conventional barrels closed by a door, allows to carry out in a completely automatic way the loading and unloading of the items in the plant end stations with a great saving of labour force as well as with no risks to the health of the operators.